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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,535	03/24/2004	Naoki Itokawa	1466.1088	3781
21171	7590	07/09/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER LEWIS, DAVID LEE	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 07/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/807,535	<b>Applicant(s)</b> ITOKAWA ET AL.	
	<b>Examiner</b> David L. Lewis	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-9 is/are allowed.
- 6) ☒ Claim(s) 1,2,10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/24/2004, 9/25/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1, 2, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuriyama et al. (6100859).**

**As in claim 1, Kuriyama et al. teaches of a method for driving a plasma display panel, figures 4-6 & 11, column 3 lines 19-24,**

**comprising: generating wall voltage in cells to be lighted within a screen so that the wall voltage is higher than that in other cells, column 1 lines 60-67, column 3 lines 35-45;**

**detecting a display ratio that is a ratio of the number of cells to be lighted to the number of cells before the application of the display pulse, column 3 lines 35-65, figure 11 item 70, column 11 lines 30-45;**

**selecting one display pulse waveform that corresponds to the detection result of the display ratio among plural types of display pulse waveforms in accordance with a predetermined relationship between a display ratio and the plural types of display pulse waveforms, column 3 lines 35-65;**

and applying a display pulse having the selected display pulse waveform to all cells after that, so as to generate discharge only in the cells to be lighted, **column 3 lines 35-65.**

Wherein the counter determines the load or ratio and adjusts the frequency, said frequency adjustment is equivalent to providing a selected pulse waveform among plural types of display pulse waveforms, each waveform type being distinguished by its frequency.

**As in claim 2, Kuriyama et al. teaches of method for driving a plasma display panel, figures 4-6 & 11, column 3 lines 19-24**

comprising: generating wall voltage in cells to be lighted within a screen so that the wall voltage is higher than that in other cells, **column 1 lines 60-67, column 3 lines 35-45;**

converting a frame into a plurality of subframes, **column 8 lines 45-63;**

detecting a display ratio that is a ratio of the number of cells to be lighted to the number of cells for each of the plural subframes, **column 3 lines 35-65, figure 11 item 70, column 11 lines 30-45;**

selecting one display pulse waveform that corresponds to the detection result of the display ratio among plural types of display pulse waveforms for each subframe in accordance with a predetermined relationship between a display ratio and the plural types of display pulse waveforms, **column 3 lines 35-65;**

and applying a display pulse having the selected display pulse waveform to all cells so as to display the corresponding subframe, **column 3 lines 35-65.**

Wherein the counter determines the load or ratio and adjusts the frequency, said frequency adjustment is equivalent to providing a selected pulse waveform among plural types of display pulse waveforms, each waveform type being distinguished by its frequency.

**As in claim 10, Kuriyama et al. teaches of a method for driving a plasma display panel, figures 4-6 & 11, column 3 lines 19-24,**

comprising: generating wall voltage in cells to be lighted within a screen so that the wall voltage is higher than that in other cells, **column 1 lines 60-67, column 3 lines 35-45;**

converting a frame into a plurality of subframes, **column 8 lines 45-63;**

detecting a display ratio that is a ratio of the number of cells to be lighted to the number of cells for each of the plural subframes, **column 3 lines 35-65, figure 11 item 70, column 11 lines 30-45;**

determining the number of discharge times for each subframe so that a luminance ratio between subframes becomes a set ratio and power consumption for one frame becomes less than or equal to a set value for each of plural combinations in waveform selection for selecting one of plural types of display pulse waveforms for each subframe, in accordance with a relationship among each of predetermined plural types of the display pulse waveforms, a display ratio, luminance in one discharge and power consumption in one discharge, **column 3 lines 35-65;**

calculating luminance of one frame for each of combinations of the determined waveform selection and the number of discharge times, **column 3 lines 35-65;**

and applying a display pulse having one of plural types of the display pulse waveforms to the cell the corresponding times in a display of each subframe so as to match the combination of the waveform selection having the highest luminance of one frame and the number of discharge times, **column 3 lines 19-65.**

**As in claim 11, Kuriyama et al. teaches of** wherein the plural subframes are classified into two groups, and the waveform selection is performed for subframes that belong to one of the groups while the display pulse waveform is fixed for subframes that belong to the other group, **column 4 lines 23-55.**

### ***Allowable Subject Matter***

2. Claims 3-9 are allowed over the prior art of record. Said feature comprising deciding a pulse having a step like waveform and/or in combination with a rectangular waveform relative to said ratio range is not taught by the prior art of record.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 2004/0021622, 4349819, 6933911, 2002/00544001, 6784858.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.
5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner: David L. Lewis

June 25, 2007

A handwritten signature in black ink, appearing to read "David L. Lewis", is written over the printed name and date.